# PX 55

#### Message

From: Patrick @ripple.com]
Sent: 6/10/2014 10:44:59 AM

To: Patrick Griffin [Patrick Griffin < @ripple.com>]

Subject: Fwd: Opencoin<<>>

Attachments: Ripple for Gateways 7.13.pdf; Ripple 5.9.pptx

### Begin forwarded message:



Great meeting you this week in SF. I've attached our financial services ('gateway') deck and our investor deck. In addition, I've included a few links to some of our press coverage:

- Felix Salmon
- Nerd Wallet
- · The Economist
- And from our blog: <u>SMTP for Money</u> & <u>Babel Fish of Currency</u>

The basic story for the sist to make profits on transfer fees, support prepaid access and remittance, accept payment from new markets at no cost, while working within your compliance limits.

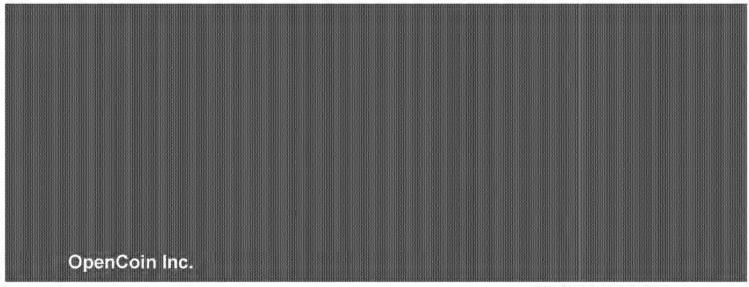
Let's plan to touch base again in August. What works on your end?

### Patrick

Patrick Griffin EVP Business Development OpenCoin, Inc.



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Financial Services July 2013

## Summary

### Ripple in Three:

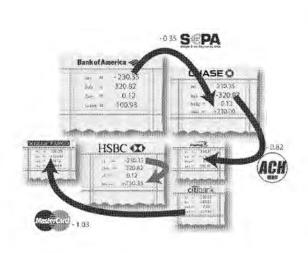
- 1. Payment Network
- 2. Currency Exchange
- 3. Math-backed Currency

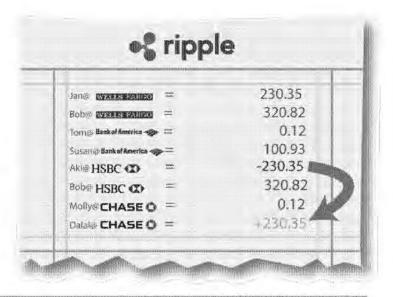


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# What is a Payment Network? A Common Ledger vs. Walled Gardens

- An accounting ledger to track account balances, or;
- A pathway between different ledgers to enable interoperability
- Ripple is a common ledger enabling total 'intra'-operability



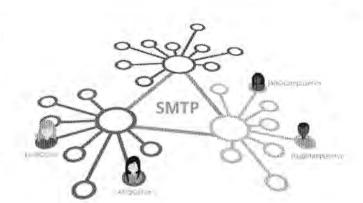




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# Ripple is Protocol

- Like SMTP, Ripple is a set of standards
- 'Server calls' to send, receive, credit, trade, etc.
- Transact directly with any other node in the protocol; in any currency

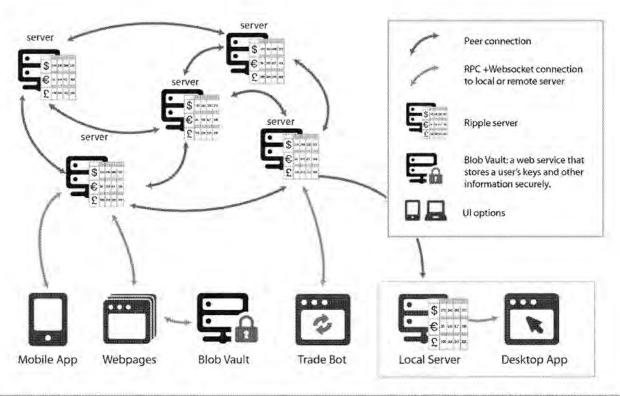


- Decentralized system hosted on servers distributed around the world
  - No one owns Ripple
- Open for any developer to use without license
  - No network operator = no network operator fees



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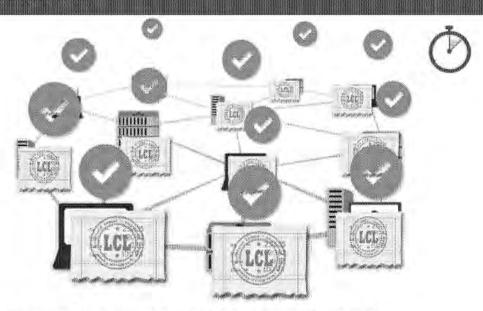
## The Ripple Eco-system



og ripple

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## Clearing through Consensus Instant & Irreversible



- Servers continuously compare transaction sets for validity
- Transactions that appear valid to the majority of servers are updated in ledger
- When the ledger updates, all intervening transactions clear and settle
- Consensus is reached every <u>5 sec</u>; the ledger <u>cannot be reversed</u>



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## Market Agents







Sellers



Market Makers (forex trading)



Gateways (cash-in/out)



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## Gateways Banks and Counterparty Risk

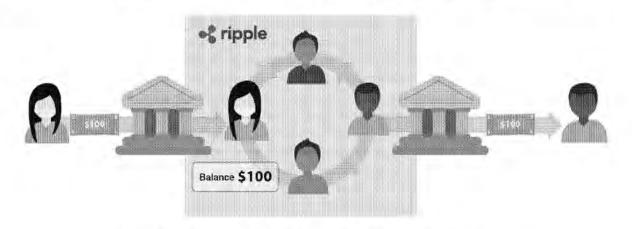
- Gateways are like banks
- They can be banks, MTB's, MSB's, FI's, or forex exchanges
- How does a bank work today?
  - o A bank takes in cash deposits and issues a balance
  - The deposited cash is loaned out immediately
  - Since the bank no longer holds the cash, the depositor's balance is a liability—an IOU
  - o IOU can be redeemed on demand (aka demand deposits)
  - o IOU balances are stored and tracked (credits & debits) in the bank's proprietary ledger
- > All debt instruments (IOU) carry counterparty risk
  - o "Will the asset be there when the debt claim is presented?"



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## Gateways How to move cash into Ripple

- Ripple is a common ledger
- Each gateway takes deposits and issues a unique IOU into the ledger
- IOU can be transferred across the ledger without intermediaries
- IOU are redeemable for the deposit, on demand, at the issuing gateway



Why? Stronger Network. New Revenue.



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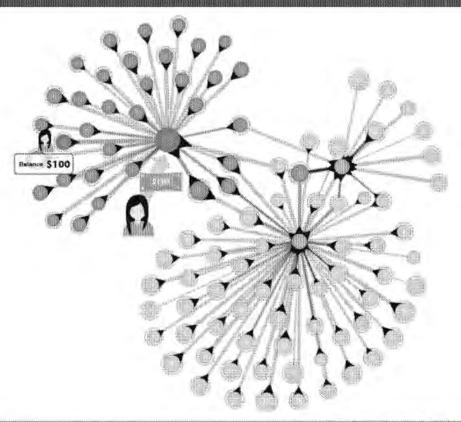
## Gateways Revenue Opportunity

- Gateway can create innovate fee structures for IOU issuance
- Possible Gateway Revenues:
  - Deposit Fee
  - Withdrawal Fee
  - Transfer Fee (Decaying Obligations)
    - · i.e., Bitstamp collects 0.20% every time their IOU is transferred
- · Fees can be flat or variable, but will be subject to market competition
- 'Aggressor' of transaction (i.e., buyer) pays any gateway fees



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# Gateways Graph of Counterparty Risk and Trust





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## Benefits

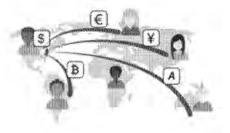




Free-'ish'







Global



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Distributed Exchange

### Global Distributed Exchange Resolve Cross-Currency Transactions

- Anyone can create bid/ask offers for any currency pair & broadcast it across the protocol
- Profit from forex spreads
- Ripple automatically moderates crosscurrency transactions through the cheapest available bid/ask in the protocol
- This eliminates the need for external exchanges
- Supports algorithm-driven trading





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Distributed Exchange

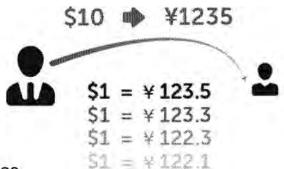
## Benefits of the Distributed Exchange

### **Key Points**

- 'Aggressor' of transaction (i.e., buyer) pays any forex spread
- Forex liquidity is determined by availability of bid/ask orders

### Value Proposition

- Automatic cross-currency convertibility
- Merchants receive complete asking price
  - > no network, issuer, or forex deductions
- No currency exposure:
  - > Pay in preferred currency
  - > Settle in preferred currency
- Wholesale forex spreads without intermediaries
- Arbitrage the Aggregate Internet Transaction Volume

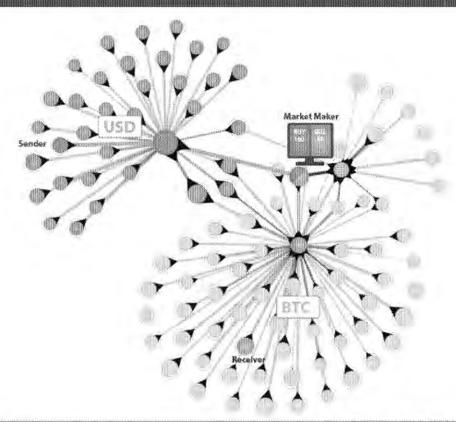




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Distributed Exchange

## Distributed Exchange Cross-currency transaction through a market-maker





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## Ripples (XRP) – the Currency

- XRP is only one currency in Ripple. Ripple supports all currencies.
- XRP uses <u>cryptography</u> to achieve monetary trust and utility:
  - Unit of Account 100% divisible and numéraire
  - Medium of Exchange liquid across any connected device
  - Store of Wealth supply is fixed and counterfeit-proof
- Because XRP uses math as an 'asset' it exists virtually, inside the Ripple protocol.
- XRP in cyberspace is the equivalent to paper cash in the physical world





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## The Role of XRP in Ripple

### Security\*

- Transaction Fee (0.00001 XRP is destroyed) prevents DDoS attacks
- Reserve requirements prevent ledger spam

\*(Note: federation obfuscates the visibility of XRP)

### Efficiency

- Forex counterparty hedging (XRP trade freely with IOU); vehicle currency
- Eliminate costs transact without issuer fees, without forex spreads
- Global currency for the Web no counterparty risk or fees

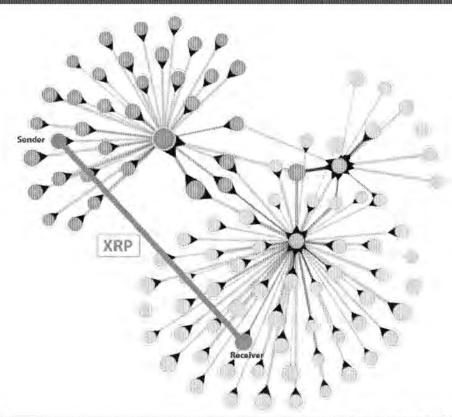
### Value

- 100B XRP no more will ever be created
- Deflationary
- XRP is valued by its usefulness to Internet commerce



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# XRP Payment without counterparty risk



of ripple

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## The Business Model Adoption of the Ripple Currency

- Ripple's business model is based on the success of its native currency
  - OpenCoin will keep between 25% to 30% of all currency created
  - OpenCoin will occasionally sell to wholesale MSB's to fund itself
- Can a virtual currency really create and hold value? Bitcoin proves it can.

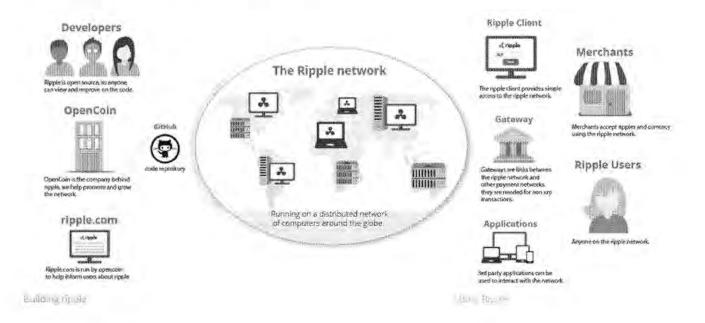




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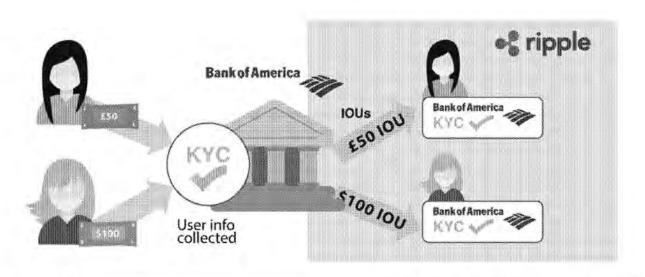
## OpenCoin Inc. vs Ripple

- OpenCoin is a for-profit corporation, holding all of the XRP
- OpenCoin's mandate:
  - 1. Hire developers to contribute to the Ripple source code
  - 2. Hire BD/Sales/Marketing to promote adoption of the Ripple payment network
  - 3. Administer the dispersal of XRP



# Law Enforcement Gateway KYC Diligence

- 1. Gateways perform AML, BSA, KYC & links identity to Ripple Key
- 2. Shows each transaction and public key involved, which links to that key's activity

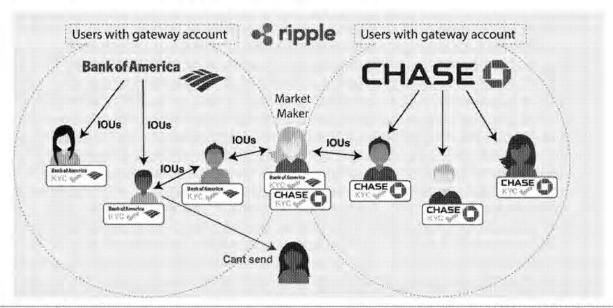


og ripple

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## Law Enforcement Gateway AML Controls

- Gateways stipulate who can hold their IOU when issuing
- By regulation, gateways will be required to govern the circulation of their IOU
- Gateways will subject every account holder to KYC



of ripple

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### OpenCoin Founders and Team

### Chris Larsen, CEO and co-founder

- CEO and co-founder, Prosper.com, 2004 to 2012: peer-to-peer lending marketplace
- CEO and co-founder, E-LOAN, 1996 to 2004: publicly traded online lender

#### Jed McCaleb, CTO and co-founder

- CTO and founder, MetaMachine, 1999 to 2005; creator of the eDonkey file sharing application.
- CEO and founder, Mt.Gox, 2010 to 2011: largest Bitcoin exchange, sold in 2011 to start this venture

### David Schwartz, Chief Cryptographer

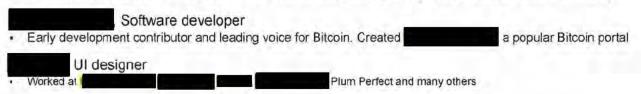
Chief Technical Officer, WebMaster Inc, 2001-2011. Worked with NSA on cryptography

### Patrick Griffin, EVP of Business Development

· Founding team at Jumio. Built the sales and business development strategy and team

#### Arthur Britto, Software developer and co-founder

· Created one of the first ISP's and one of the first Bitcoin exchanges. Highly respected in Bitcoin community

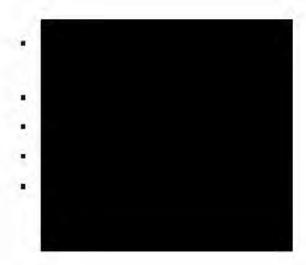




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# OpenCoin Inc. Financing - \$ Million Angel Round



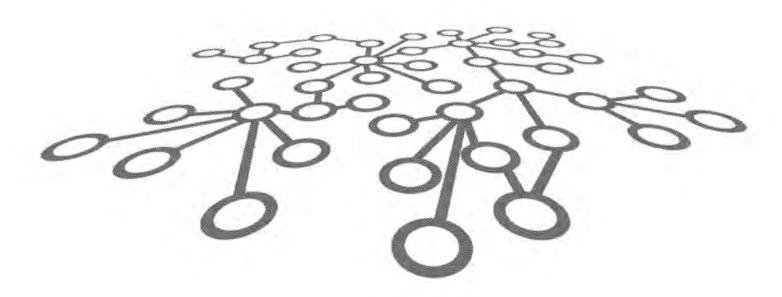


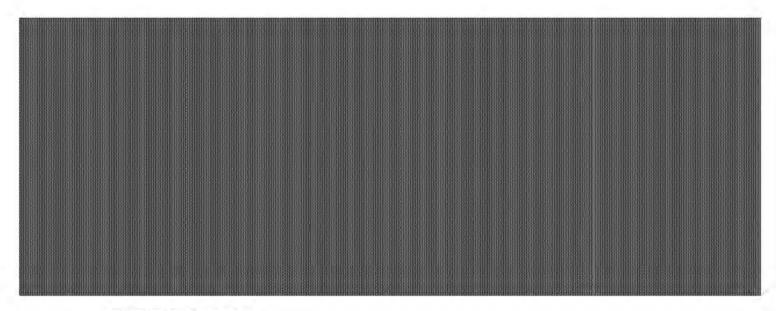


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## of ripple

partners@ripple.com





**APPENDIX** 

### Summary

- Ripple is a distributed open source payments network that enables:
  - Free global payments without chargebacks to anyone, anywhere
  - Ability to pay in any currency using the world's first distributed currency exchange
  - Open protocol that any developer can use without license, permission or fees
- The Ripple network enables the creation of a new currency called ripples
  - Like bitcoins, trust as a store of value is based on a math relationship of servers in a distributed network
  - New users receive free ripples when they create an account
  - Ripples are the native currency of the payment network. For example, they are used in lieu of transaction fees to prevent system attacks
- OpenCoin Inc. maintains the software and promotes the network
  - The company's business model is based on ripples gaining acceptance and value
  - The company does not control or direct transactions in any way



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# Ripple Network Comparison to Bitcoin

- The Network includes a native currency called ripples or XRPs. 100 Billion XRP are created at inception – this amount can not be increased.
- Ripple currency focuses on the key attributes of trust, utility and liquidity better than Bitcoin, the other major math-based global currency



#### Equal to Bitcoin trust:

- Amount can't be changed
- Math method currency

#### Better than Bitcoin trust:

· Ledger consensus solves 51% attack problem

#### Better than Bitcoin utility:

- · Confirms in seconds vs. 10 plus minutes
- · Allows any currency BitCoin is Bitcoin only
- · No blockchain scale limitation
- · Can adopt Ripple in preferred currency

#### Improved liquidity:

- · Anyone can provide currency exchange
- · Trade currency within network



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# OpenCoin Inc. Regulatory and Legal

- Retained Perkins Coie to advise on regulatory issues
  - Dax Hansen, Partner in charge of Electronic Financial Services practice with expertise in electronic payments and virtual currencies



- Mitigating regulatory risks
  - We do not maintain the payments system or client on our servers. The product is a distributed open source platform that is not centrally controlled.
  - We will position the distributed design of the platform as entirely about cost reduction to consumers and merchants.
  - We will actively engage with law enforcement and only promote legal and constructive uses
    of the platform.
  - Bitcoin has operated for 3 years without much regulatory concern the FBI and ECB have issued extensive reports on Bitcoin that were fairly neutral.



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# OpenCoin Inc. Key Regulatory Issues and Tactics

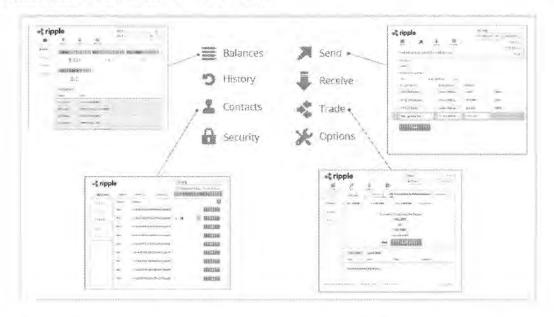
- Is OpenCoin subject to FinCEN duties as a money transmitter?
  - While virtual currency regulation is still evolving, OpenCoin does not authorize payments, control transactions or operate the servers that run the network
- Although currencies are specifically exempt from securities law, virtual currencies such as Bitcoin have not received designation as currencies. As such, is this new currency a security?
  - Will not be sold to users or investors in the Corporation
  - Will be given away for free to users
  - Will only sell to licensed wholesale MSB's
- Are we responsible for illegal uses of the platform?
  - We will only promote legal uses
  - We will work closely with law enforcement to fight fraud and scams
  - Platform interfaces with the traditional banking system through 'Gateways', which are licensed MSBs and/or money transmitters

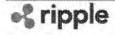


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# The Ripple Network Open Source Example Client

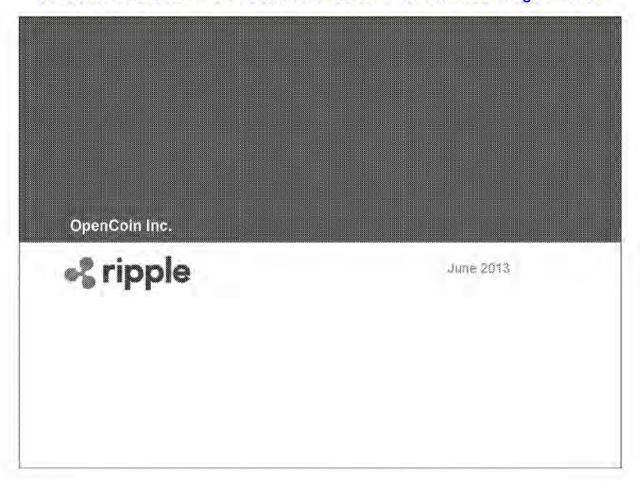
- A Ripple client exists at <u>www.ripple.com/client</u> to demonstrate basic Ripple features like sending, receiving, and exchanging ripples or Gateway IOUs denominated in other currencies.
- The client is open source at github.com and can be used without license, fees or permission. We expect many third party clients to appear soon.





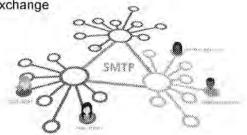
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## Summary

- Ripple is a distributed payments network
  - Free global payments without chargebacks to anyone in any currency
  - · Like SMTP, a protocol for moving money anyone can use without license or fee
- The network is enabled by a new currency called ripples (XRP)
  - Trust in XRP is based on a math relationship of servers in a distributed network
  - XRP serve key and unique functions within the network. For example, network transaction fees are dominated in XRP.
- Ripple is the world's first distributed currency exchange
  - Anyone can create a offer for any currency
  - · Federates the world's payment networks
- OpenCoin Inc. maintains the software and promotes the network

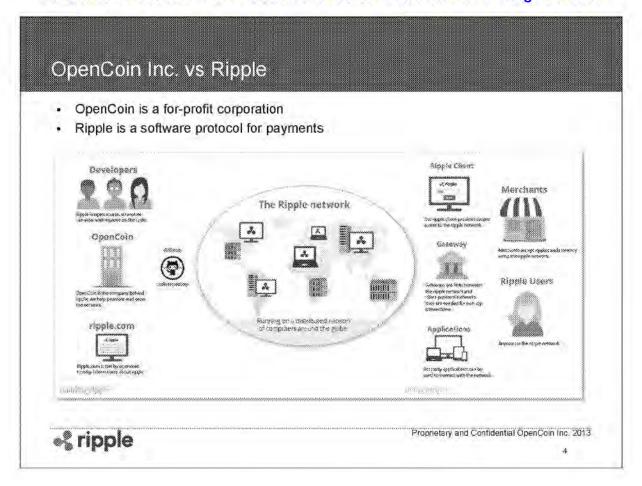


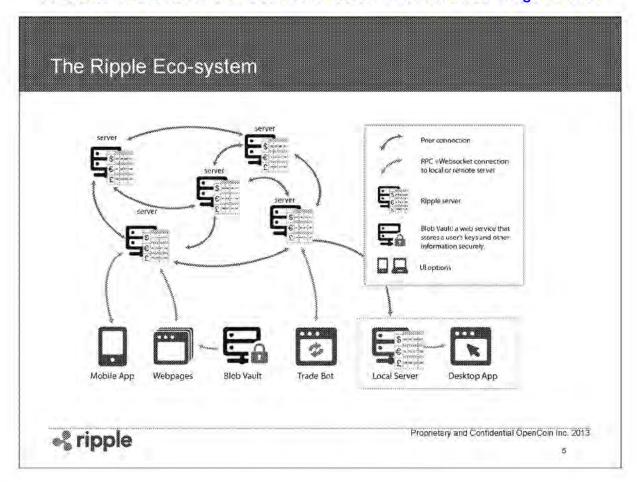


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### OpenCoin Founders and Team Chris Larsen, CEO and Co-Founder CEO and co-founder, Prosper.com, 2004 to 2012; peer-to-peer lending marketplace CEO and co-founder, E-LOAN, 1996 to 2004; publicly traded online lender Jed McCaleb, Co-Founder CTO and founder, MetaMachine, 1999 to 2005; creator of the eDonkey file sharing application. CEO and founder, Mt.Gox, 2010 to 2011; largest Bitcoin exchange, sold in 2011 to start this venture Interim CTO Early development contributor and leading voice for Bitcoin. Created a popular Bitcoin portal David Schwartz, Chief Cryptographer Chief Technical Officer, WebMaster Inc, 2001-2011. Worked with NSA on cryptography Patrick Griffin, EVP of Business Development · Founding team at Jumio. Built the sales and business development strategy and team Arthur Britto, Co-Founder, Chief Strategy · Created one of the first ISP's and one of the first Bitcoin exchanges. Highly respected in Bitcoin community Creative Director Worked at Other Team Members, 5 Software Developers, 3 support, contract Finance and PR Proprietary and Confidential OpenCoin Inc. 2013 📲 ripple

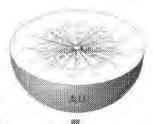


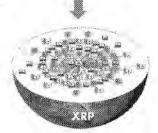


## Clearing through Consensus Instant & Irreversible Servers continuously compare transaction sets for validity Transactions that appear valid to the majority of servers are updated in ledger When the ledger updates, all intervening transactions clear and settle Proprietary and Confidential OpenCoin Inc. 2013

## The Role of XRP in Ripple

- Security
  - Transaction Fee (0.00001 XRP) prevents DDoS attacks
  - + Reserve requirements prevent ledger spam
- Efficiency
  - Forex counterparty hedging (XRP trade freely with IOUs)
  - Eliminate costs transact without issuer fees or forex spreads
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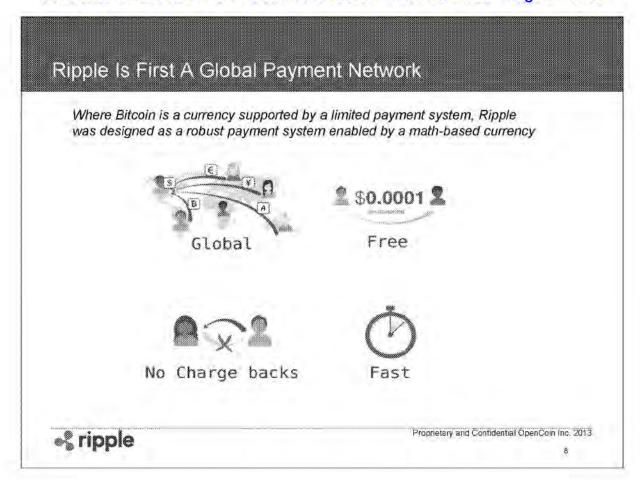


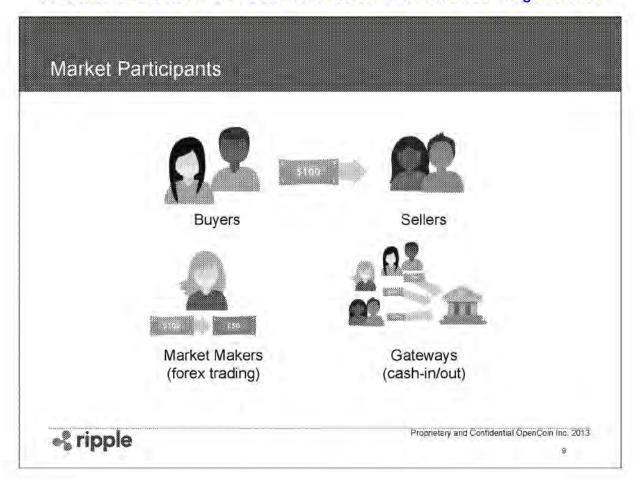


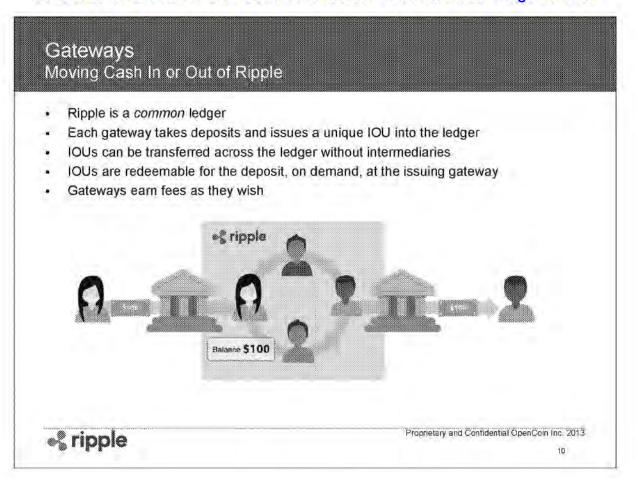


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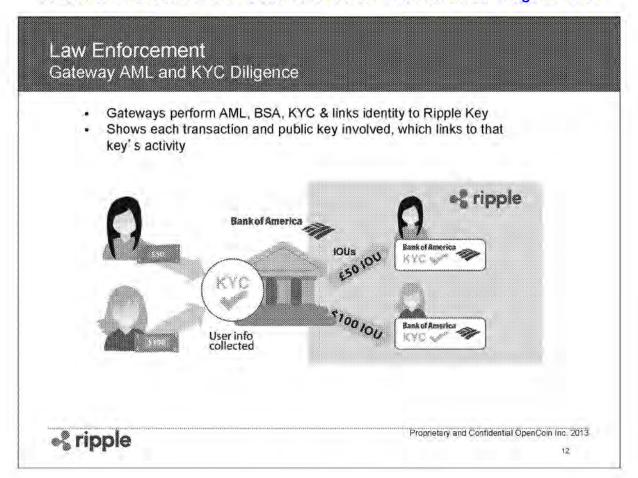
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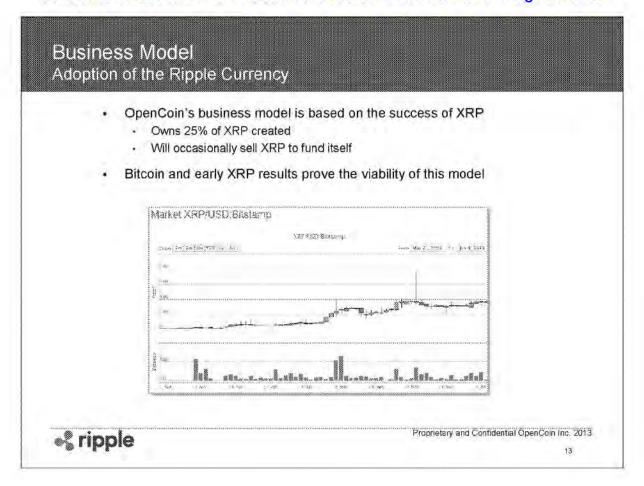


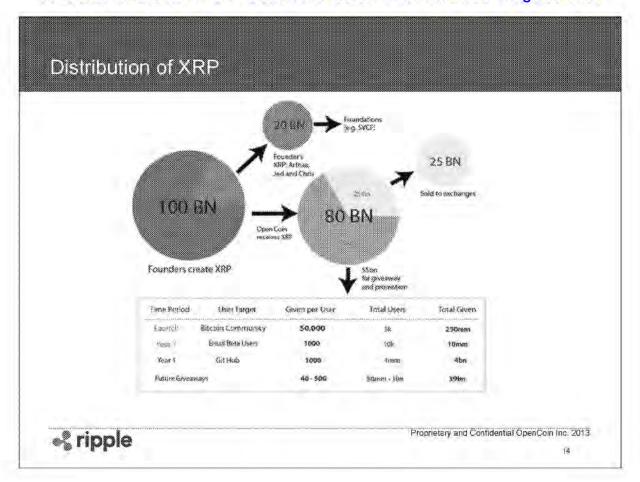


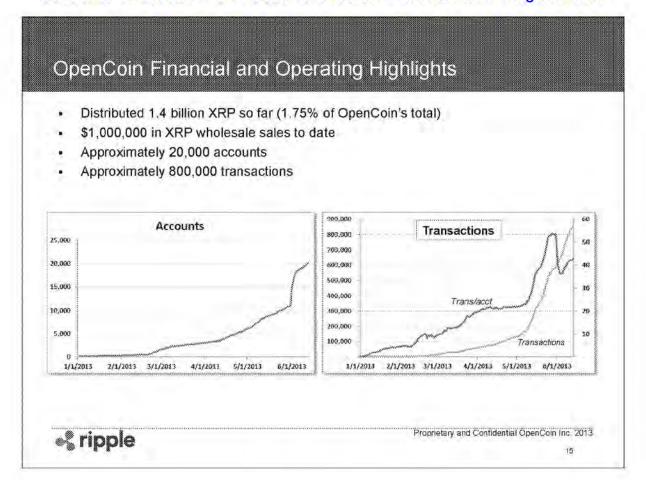


# Global Distributed Exchange Enables Cross-Currency Transactions - Anyone can create bid/ask offers for any currency pair from any issuer - Participants can profit from forex spreads - Ripple executes currency transactions through the cheapest available bid/ask - Eliminates the need for external exchanges - Supports algorithm-driven trading









## Market Development

- Phase 1: Trust and Awareness
  - · Existing Bitcoin users and merchants
  - · Emphasis on payment network, benefits of consensus over mining
- Phase 2: Utility and Liquidity
  - Begin giving away large amounts of ripples free of charge
  - · Attract gateways and key market makers
  - · International payment and transfer products and use cases
- Phase 3: Build merchant adoption
  - · Global e-commerce marketplaces
  - E-commerce payments platforms
  - · Mainstream merchants
  - · Amazon, Wal\*mart



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## Regulatory and Legal

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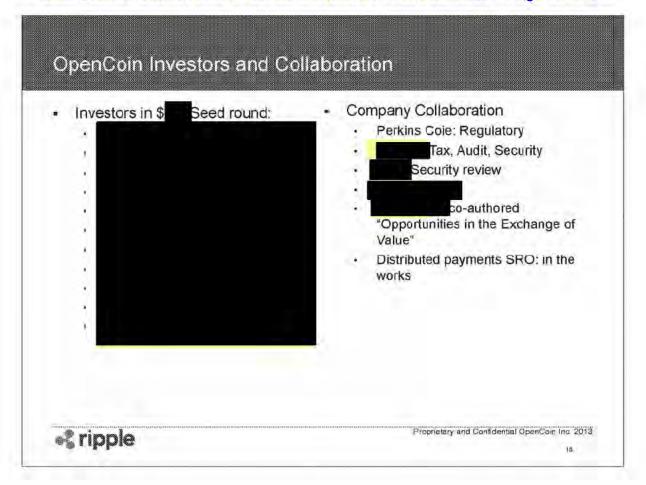


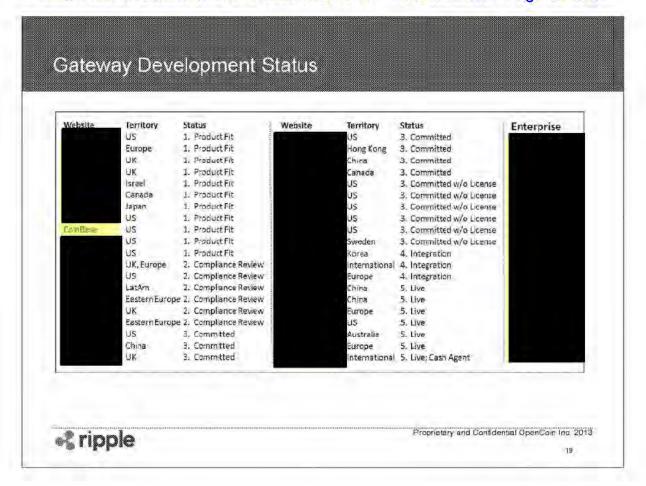
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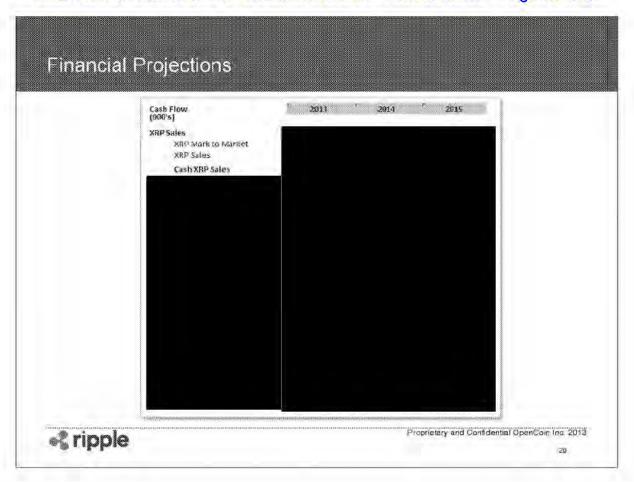
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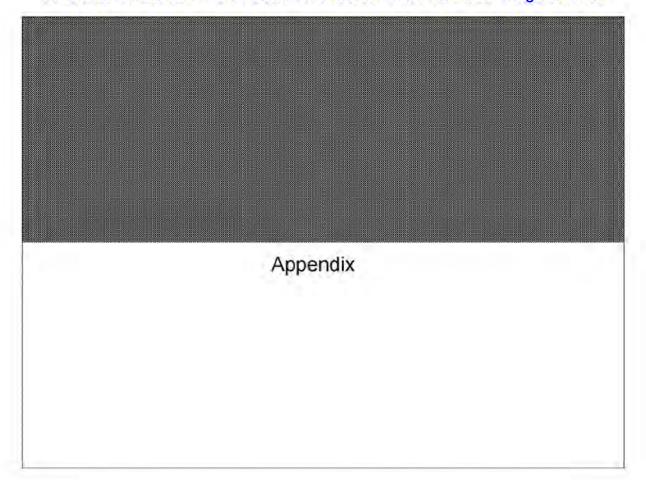
### Series A Use of Proceeds

- Team
  - Expanding Tech and Biz Dev Teams
  - Recruiting costs
- Credibility
  - · Regulators, partners, incumbents
  - · Balance sheet strength
- Flexibility in when to sell XRP
- Policy, Tax, Regulatory work

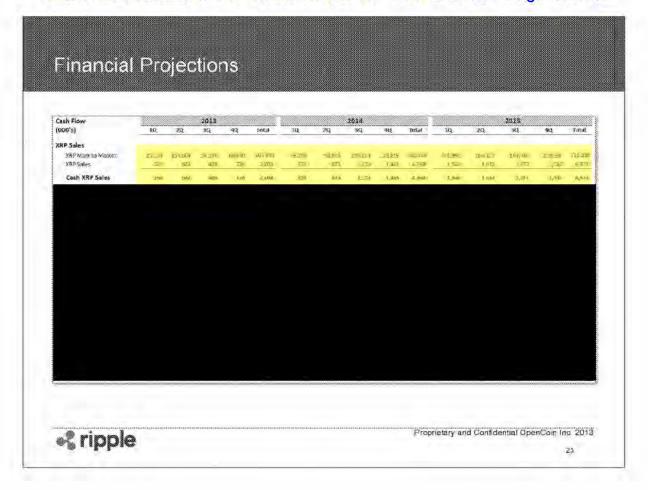
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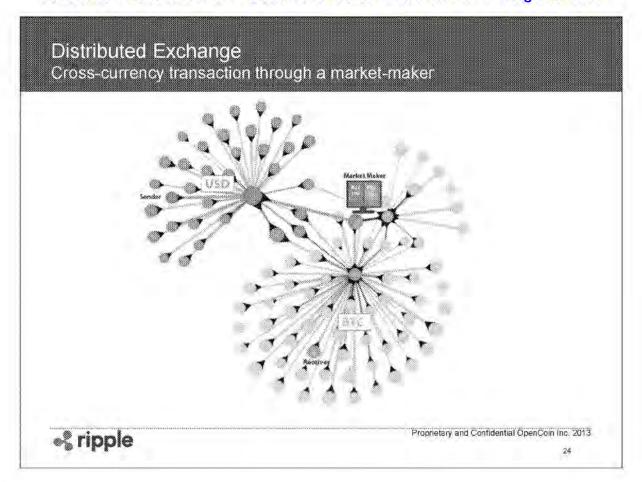
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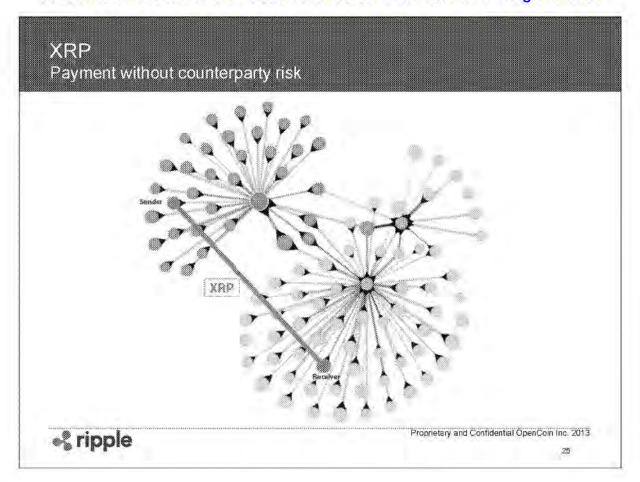


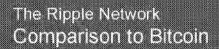
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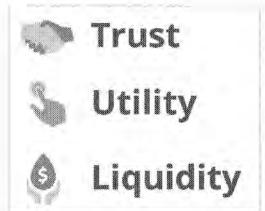


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 Ripple currency focuses on the key attributes of trust, utility and liquidity better than Bitcoin, the other major math-based global currency



### Equal to Bitcoin trust:

- · Amount can't be changed
- · Math method currency

### Better than Bitcoin trust:

Ledger consensus solves 51% attack problem

### Better than Bitcoin utility:

- · Confirms in seconds vs. 10 plus minutes
- Allows any currency BitCoin is Bitcoin only
- · No blockchain scale limitation
- · Can adopt Ripple in preferred currency

### Improved liquidity:

- · Anyone can provide currency exchange
- · Trade currency within network

-% ripple

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